REMARKS

In the Claims:

Claims 2, and 5-14 remain in this application. Claims 2, 5, 6, 8, and 10 have been amended. Claims 1, 3, 4, and 15-36 have been canceled.

Please note that claim 10 has merely been amended into independent form. Only the form, not the substance, of claim 10 has changed; no limitations were added or deleted.

Rejections Under 35 U.S.C. 102(b):

Claim 1, 2, and 5-7 were rejected under 35 U.S.C. § 102(b) as being anticipated by Glatkowski et al. (U.S. 6,265,466) (hereinafter "Glatkowski").

Claim 1 has been canceled.

Claims 2 and 5-7 now depend from claim 10. The rejections of these claims are addressed below.

Rejections Under 35 U.S.C. 103(a):

Claims 8-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Glatkowski in view of Bandyopadhyay et al. (U.S. Pub. 2004/0016912) (hereinafter "Bandyopadhyay").

Because Glatkowski and Bandyopadhyay, alone or in combination, do not disclose or suggest the use of clay as an alignment material as is recited in claim 10, the rejection is unsupported in the art and should be withdrawn.

Glatkowski is concerned with electromagnetic shielding (*see*, Glatkowski, Title, abstract, etc.). Polymer materials are being used in many applications in place of metal (Glatkowski, col. 1, lines 15-19). Because polymer materials have replaced metal,

electromagnetic shielding previously inherently provided by these metal materials has been lost (Glatkowski, col. 1, lines 15-19). A composite material including carbon nanotubes in addition to the polymer provides the polymer with the desired electromagnetic shielding (Glatkowski, col. 2, lines 12-15). A shearing, stretching, or elongating step may be used to orient the nanotubes (Glatkowski, col. 4, lines 27-36).

Bandyopadhyay is concerned with increasing the electrical conductivity of a polymer material (*see*, Bandyopadhyay, Title, abstract), and does not address orienting carbon nanotubes that may be present in such a material. Previous materials with electrically conductive material in addition to the polymer resulted in materials with undesirable mechanical properties (Bandyopadhyay, paragraph [0004]). Adding a conductive filler and a polycyclic aromatic compound increases the electrical conductivity and overcomes the disadvantages of the previous materials (Bandyopadhyay, paragraph [0005]).

Glatkowski discloses orienting the nanotubes without the use of clay as an alignment material (Glatkowski, col. 4, lines 27-54). Similarly, Glatkowski does not disclose or suggest that clay could be used as an alignment material. Thus, one of skill in the art, armed with the teaching of Glatkowski, would not be motivated to add any other alignment material, much less that clay would be an appropriate alignment material to add.

While Bandyopadhyay discloses that clay may be used in a polymer material, Bandyopadhyay fails to disclose or suggest that clay could be used as an alignment material and fails to disclose or suggest that clay should be used with the nanotube composite material of Glatkowski. Thus, Bandyopadhyay provides no information that would lead one of skill in the art to use clay as an alignment material.

The fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination

(MPEP 2143.01; *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)). Yet, this is exactly the argument the Examiner makes in the rejection. The Examiner stated that one of ordinary skill in the art would use the clay filler of Bandyopadhyay with the nanotube composite of Glatkowski, because Bandyopadhyay, "suggests that various mixtures of conductive and non-conductive fillers may be used in a composite material used for electromagnetic shielding." (Office Action, page 3.) This statement does not provide a suggestion or motivation to combine the two references. Rather, it merely states that the two references *can* be combined easily, which is exactly the sort of rejection that, under *In re Mills*, is not proper. The statement ignores the requirement that the Examiner show *why* one of skill in the art would be motivated make such a combination. Since the Examiner has not provided a suggestion or motivation to combine the references, the Examiner has failed to make a proper prima facie rejection.

Because, as stated above, the cited references provide no motivation or suggestion to combine the references, the rejection can only be based upon using Applicants' own claim as a cookbook for combining elements, something that is not allowed in making a rejection under 35 U.S.C. 103(a). A suggestion or motivation to combine references must be found in the prior art and not based upon Applicants' disclosure (MPEP 706.02(j), 2143; *In re Vaeck* , 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)). As discussed above, the references themselves provide no such suggestion or motivation, and the Examiner has not provided any suggestion or motivation known to one of ordinary skill in the art. Thus, the only suggestion or motivation to combine the references to result in the invention as recited in claim 10 is found within claim 10 itself, something that is not allowed.

Claims 11-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Glatkowski in view of Bandyopadhyay and Lan et al. (U.S. 6,387,996) (hereinafter "Lan").

Because the cited references fail to provide a suggestion or motivation to combine them to result in the method recited in claims 11-14, the rejection is unsupported in the art and should be withdrawn. Claims 11-14 depend from claim 10. As discussed above with respect to claim 10, because neither Glatkowski nor Bandyopadhyay discloses or suggests that clay may be used as an alignment material to align carbon nanotubes, the two references fail to provide a motivation to combine them to result in the method recited in claim 10. Lan fails to rectify this deficiency. Thus, none of the cited references provide a suggestion or motivation to combine them to result in the method recited in claims 11-14.

Claims 2 and 5-9 now depend from claim 10. As discussed above, the cited references fail to disclose or suggest that clay may be used as an alignment material to align carbon nanotubes. Thus, none of the cited references provide a suggestion or motivation to combine them to result in the method recited in claims 2 or 5-9.

Respectfully submitted,

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